

TYPE^{TO} LEARN[®]

4

AGENTS OF INFORMATION

Teacher's Guide

and Installation Instructions



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21st Century Skills

Why teach keyboarding? Because computing is a way of life today. Not only in school or in the workforce, but as a means for communicating with others, sharing ideas, and expressing thoughts. The keyboard is the primary means of interfacing with a computer. Keyboarding is therefore an essential, 21st Century skill that students must develop in order to use computers effectively and efficiently.

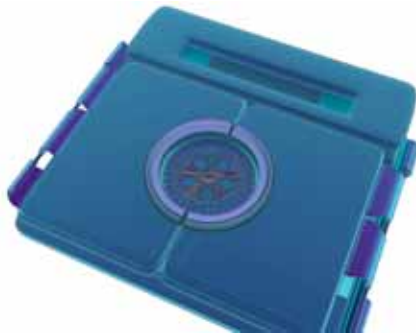
Even very young children are actively involved with using technology and computers on a regular basis. Research shows that keyboarding is and should be taught to students at an earlier age, before bad habits form. This early introduction reduces bad habit development and provides additional benefits that include improvements in spelling, writing, and reading comprehension. Student writing develops faster through word processing because it facilitates the review and revision process. Efficient keyboarding skills allow students to emphasize concept development instead of focusing on key location. Students who become efficient keyboarders “compose better, are prouder of their work, produce documents with a neater appearance, and have better motivation,” (Nieman, 1996).

Language arts skills are further developed by the lessons and activities in *Type to Learn 4*, which reinforce phonics, grammar, vocabulary, proper usage of punctuation, sight words, frequently misspelled words, and other elements of written language. Cross-curricular activity payoffs provide grade-appropriate incidental learning in the areas of: science, literature, social studies, and other general knowledge topics.

Mastering keyboarding involves learning technique (physical positioning and movement), ergonomics (safe and comfortable keyboard interaction), and key location. Learning key location requires a sequential introduction of the keys along with a great deal of repetition and reinforcement to develop the kinesthetic memory traces leading to keyboarding automaticity. Efficiency is expanded if keyboarders type short letter clusters and words as single units instead of groups of individual letters (e.g., er, ing, the, my). *Type to Learn 4* calls these clusters Quick-Blends and Quick-Words.

With *Type to Learn 4: Agents of Information*, using the keyboard will become as natural to your students as writing with pen and paper. Its research-based, interactive learning environment will engage all K-12 keyboarding learners.

Type to Learn 4: Agents of Information



Centuries ago, a secret society called the Agents of Information was created to protect accurate information for all generations to come. Now, many centuries later, even with new technology, our world is in danger of a total communication breakdown!

You have been selected to be trained as a new agent. Every agent must master the critical, lifelong skill of keyboarding. Without our group of fast and accurate typing agents, the flow of information would come to a disastrous halt!

We're the Agents in Charge. Here is your communicator to use throughout your training. The medallion is a symbol of our society and of your progress. Your starting rank is Recruit. Good luck!

As students progress through the lessons and pass the formative assessments, they earn new ranks in the society: The Agents of Information.

Society Ranks (Grades K-2 / 3-12):

Beginner / Recruit

Helper / Trainee

Assistant

Leader / Technician

Specialist

Expert

Master Agent

Proper Keyboarding Technique

Use two hands to type.

Your right hand goes on the right side of the keyboard, and your left hand goes on the left side.

Put your right hand on J K L and ; and your left hand on F D S and A. This is the Home Row.

The bumps on the J and F keys should be under your index fingers.

Curve your fingers.

Keep your wrists straight, not bent down.

Sit up straight!

Put your feet flat on the floor.

Look straight ahead at the screen.

When you type, hit each key with a quick, strong tap.

Keep your fingers close to the keyboard.

Have fun!

Standards Alignments

Type to Learn 4: Agents of Information aligns with Keyboarding and Technology standards in all 50 states, the District of Columbia, and Ontario, Canada. *Type to Learn 4* also meets the ISTE 2007 National Educational Technology Standards for Students (NETS-S):

2007 Standards:

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- a. apply existing knowledge to generate new ideas, products, or processes.
- b. create original works as a means of personal or group expression.

6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

- a. understand and use technology systems.
- b. select and use applications effectively and productively.
- c. troubleshoot systems and applications.
- d. transfer current knowledge to learning of new technologies.

NETS for Students 2007 Profiles:

Grades PK–2 (Ages 4–8)

The following experiences with technology and digital resources are examples of learning activities in which students might engage during PK-Grade 2 (Ages 4-8):

1. Illustrate and communicate original ideas and stories using digital tools and media-rich resources. (1,2)
7. Demonstrate safe and cooperative use of technology. (5)
8. Independently apply digital tools and resources to address a variety of tasks and problems. (4,6)
9. Communicate about technology using developmentally appropriate and accurate terminology. (6)
10. Demonstrate the ability to navigate in virtual environments such as electronic books, simulation software, and Web sites. (6)

Grades 3–5 (Ages 8–11)

The following experiences with technology and digital resources are examples of learning activities in which students might engage during Grades 3-5 (Ages 8-11):

8. Practice injury prevention by applying a variety of ergonomic strategies when using technology. (5)

Lesson Scope and Sequence

Type to Learn 4: Agents of Information covers not only letter and number keys but all symbols, the numeric keypad, the arrow keys, and several keyboard commands:

Diagnostic Pre-Test
Lesson A Keyboarding awareness – lowercase alphabet
Lesson B Keyboarding awareness – numbers, capital letters, punctuation
Lesson 1 J F Space Bar
Lesson 2 U R
Lesson 3 K D
Assessment 1
Lesson 4 I E
Lesson 5 H G
Assessment 2
Lesson 6 L S Right Shift
Lesson 7 Quick-Blends and Quick-Words
Lesson 8 O W Left Shift
Lesson 9 ; A Enter/Return
Assessment 3
Lesson 10 P Q Backspace/Delete
Lesson 11 Quick-Blends and Quick-Words
Lesson 12 Y T Tab
Lesson 13 Arrow Keys
Lesson 14 B N
Lesson 15 Quick-Blends and Quick-Words
Assessment 4
Lesson 16 M V
Lesson 17 , C
Lesson 18 Quick-Blends and Quick-Words
Lesson 19 . X
Lesson 20 / Z ?
Assessment 5
Lesson 21 ctrl-C, ctrl-V, ctrl-S (cmd-C, cmd-V, cmd-S)
Lesson 22 ctrl-X, ctrl-Z (cmd-X, cmd-Z)
Lesson 23 : ' "
Lesson 24 6 7 ^ &
Lesson 25 5 4 % \$
Lesson 26 8 3 * #
Lesson 27 9 2 (@
Lesson 28 0 1) !
Lesson 29 Numeric Keypad 4 5 6 7 8 9 Enter
Lesson 30 Numeric Keypad 1 2 3 0 . + - * /
Lesson 31 < > [] { }
Lesson 32 - = _ +
Assessment 6
Lesson 33 Passages
Lesson 34 Original Writing

Quick-Blends and Quick-Words

It is important that keyboarding instruction explicitly teach frequently used letter combinations and words, which we call Quick-Blends and Quick-Words. For example, the letters “th” make a Quick-Blend that should be thought of and typed as a unit, rather than as two single letters. Typing these Quick-Blends and Quick-Words fluidly, as a unit, develops greater keyboarding speed and efficiency.

The following are the Quick-Blends and Quick-Words taught in *Type to Learn 4*:

For grades K-2 vocabulary:

Lesson Letters Quick-Blends Quick-Words

Lesson	Letters	Quick-Blends	Quick-Words
4	I, E	er, de, ed, re	
5	H, G		her, he
6	L, S	es, is	his, is
8	O, W		do, of, or, we, for
9	; A	ad, ag, al, as,	all, are, had, has, was
10	P, Q	ap, ip	up
12	Y, T	ay, at, th, ly, ey	the, you, that, they, this, with
14	B, N	en, un	an, be, by, in, on, no, and, but, end, not
16	M, V	em, im	am, him, have, from, my
17	C	ic, ch, ck	

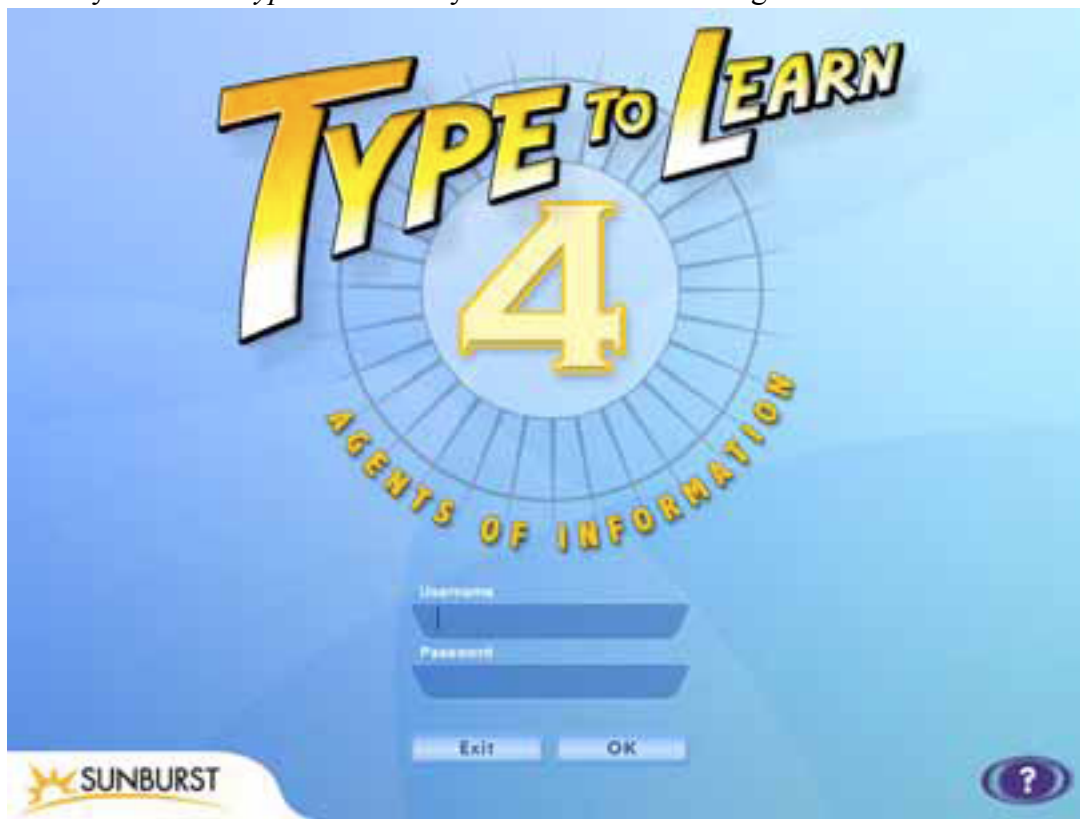
For grades 3-12 vocabulary:

Lesson Letters Quick-Blends Quick-Words

Lesson	Letters	Quick-Blends	Quick-Words
4	I, E	er, de, ed, re	if
5	H, G		her, he
6	L, S	es, is, dis, ell, ful, ill, less	his, is
8	O, W	ous, eous, fore, ious,	do, of, or, we, for
9	; A	ad, ag, al, as, ail, ial	all, are, had, has, was
10	P, Q	ap, ip, pre	up
12	Y, T	ay, at, ey, th, ly, est, ity	the, you, that, they, this, with
14	B, N	en, un, ank, ing, ion, non, sub, able, anti, ible, ness, tion	an, be, by, in, on, no, and, but, end, not
16	M, V	em, im, ive, mid, mis, ment	am, him, have, from, my
17	C	ic, ck, ch, ick, ack	

Logging In

When you launch *Type to Learn 4* you will first see this login screen:



All students login here.

Enter your username first initial and password.

Student User Name = first initial + last name (up to 12 lowercase letters, no spaces, numbers or other characters)

Student Password = graland (all lower case)

Account Code = 104324 (Use the first time the program is run on a computer. After that, it is remembered by the program.)




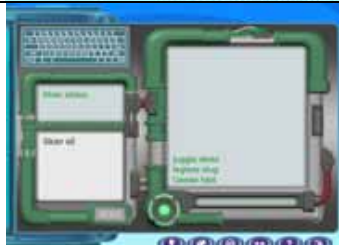

NOTE: Nicknames and hyphenated or “two parent” last names were used, lowercase letters only. User names are limited to 12 characters. In most cases, children who had the same user names were in the same family. When that was the case, the older child’s user name is the first and second letter + up to 10 letters of the last name.

Logging Out

Click Exit on the Main Menu to quit *Type to Learn 4* and log out from the program. You can also press Esc from anywhere in the program.

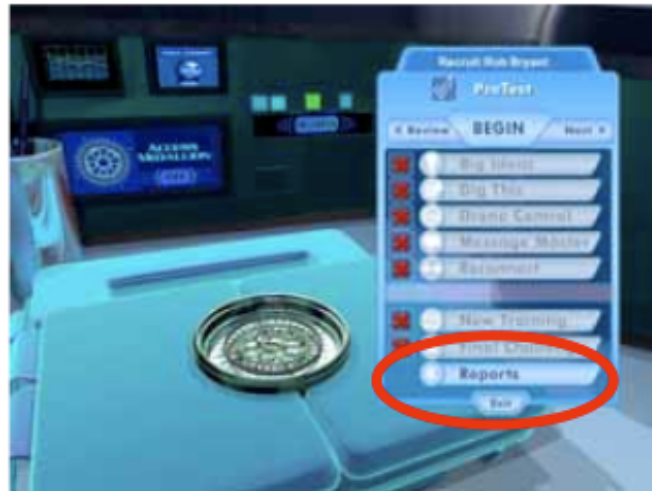
Activities per Lesson

Each lesson has 5 practice activities corresponding to the keys learned in that lesson. Each activity focuses on a specific keyboarding skill:

	Activity	Skill	Description
	Big Ideas	Left hand – Right hand Coordination	Students type what they see in thought bubbles to save ideas from being lost forever. Thought bubbles are typed by the right hand or the left hand, exclusively.
	Dig This	Accuracy & Smooth Typing Cadence	Students type accurately to carefully break the ice or stone and uncover what's underneath. An optional metronome beat helps them type in a smooth cadence.
	Drone Control	Speed	Students type commands to pilot an unmanned drone vehicle and deliver important information.
	Message Master	Accuracy, Dictation, & Original Writing	Students send important messages by typing text, dictation, and original writing prompts.
	Reconnect	Shift Keys	Students use the Shift keys to type lines of secret code, including capital letters, symbols, and punctuation, and rebuild infrastructure in the process.

Main Menu

After logging in you are brought to the *Type to Learn 4* Main Menu:



Student main menu

By default, all students begin with a PreTest. They click Begin to start the PreTest. If the pretest has been made optional by the teacher, then students can click Next to begin their first lesson.

As students progress through the lessons, they must complete the lesson, any required activities (determined by the teacher), and pass the Final Challenge before they are allowed to progress to the next sequential lesson.

Click Review and Next to cycle through the lessons and assessments. Teachers can cycle through and access all lessons, at any time. Students never have access to lessons they have not yet completed or progressed to.

The 5 activities may also be accessed from the main menu:



checkmark indicates a required activity that is not yet done.



A filled-in checkmark indicates an activity that has been successfully completed.



A red X indicates an activity or task that is unavailable at that time.

Options

Click Options on the main menu to bring up the *student* Options screen (teachers have access to many more options and settings in the Management area):



Students can select the Master Agent host they prefer, change the color of the reference hands on the keyboard during lessons, turn music and sound effects on or off, and adjust the volume.

Access Medallion

Students can click Access Medallion on the main menu screen to personalize the colors of their progress medallion. Click the left and right arrows to see the color set choices. Click OK to select a color set. The medallion can be changed at any time from the student's main menu.



As students complete lessons and assessments, their medallion fills in to show their progress.

Call Agent

Clicking Call Agent on the main menu brings up Help for that screen:



Students can click the speaker button in the top right corner to hear the Help read aloud. Students can also roll their cursor over the text on screen to see a Spanish ESL translation, larger text size, different font colors, and to trigger ESL audio. All of these accessibility options are turned on or off by the teacher in the Settings area.

Lessons

Click Begin to start a lesson.



Every lesson follows these steps:

1. Home Row Reminder
2. Warm Up
3. Security Check
4. Learn New Keys
5. Exercises 1-3 or 4

The student's current WPM and Accuracy goals display in the left-side panel, and their medallion progress and current rank are on the right.

Buttons on the right side of the keyboard take you to the activities, if available.

Buttons on the left side of the keyboard are:



Main Menu



Help

A progress bar shows students the progress they're making through the current lesson:



Activities

There are 5 practice activities with each lesson. These activities teach specific keyboarding skills and contain content corresponding to the keys learned in each lesson. Activities can be accessed from the main menu, from the lesson screen, or from another activity screen.

Big Ideas Activity

This is a timed activity focusing on right hand and left hand coordination. Students need to type the words inside the thought bubbles. All thought bubbles are on the right or left side of the screen, and contain content typed with either the right hand or the left hand, exclusively.



The speed of the thought bubbles is related to the student's WPM goal, so it is always an appropriate challenge. Students get a point for each correctly typed character. Their WPM and accuracy are also recorded.


Time limits defaults are:

30 sec for grades K-2

45 sec for grades 3-6

60 sec for grades 7-12

Dig This Activity

This activity focuses on accuracy and typing to a beat to encourage a smooth typing cadence. Students type the text displayed in order to break the ice or stones and reveal what's hidden beneath. The metronome beat for cadence can be turned on or off by the teacher in settings, as well as by the student in the game itself, by clicking on the music icon: .

Dig This Activity (cont.)



WPM and accuracy are always recorded.

Drone Control Activity

This is a timed activity focusing on speed as well as accuracy. Students type the displayed text as quickly as possible to command a drone to move through dangerous terrain. They must reach their destination before time runs out.



The amount of content provided to the student in this game depends on their individual WPM goal. Students must type fast enough to meet their WPM goal in the time allotted in order to successfully reach their destination. WPM and accuracy are always recorded.

Time limits may be adjusted by the teacher. Defaults are:

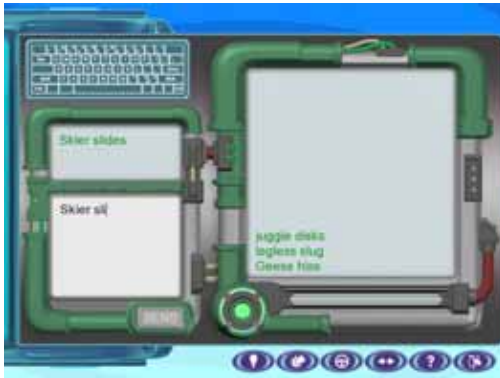
60 sec for grades K-2

75 sec for grades 3-6

90 sec for grades 7-12

Message Master Activity

This activity provides 3 different tasks, depending on what lesson the student has reached. In lessons 1-7, the student types the text displayed on screen. WPM and accuracy are recorded.



In lessons 8-20, the student hears dictation of what to type. They can click on the speaker button to hear it repeated. All dictation content is grade-appropriate in terms of vocabulary and spelling. Homophones are also avoided. WPM and accuracy are recorded.

In lessons 21-34, the student hears a writing prompt and must write a few original sentences in response to the prompt. All prompts are grade-appropriate (see Appendix B). The student can click on the speaker to hear the writing prompt repeated.

Students must write a minimum number of words before they can submit their original writing. These requirements are:

- 6 words for grades K-2
- 10 words for grades 3-6
- 20 words for grades 7-12

Students in grades K-2 must complete 1 writing prompt, grades 3-6 must complete 2 prompts, and grades 7-12 must answer 3 writing prompts.

Original writing is not scored for accuracy, but WPM is tracked. Students' writing is available to teachers to view in the reports area.

Reconnect Activity

This activity focuses on using the Shift key for capital letters, symbols, and punctuation.

Students type the displayed text in order to reconnect important infrastructure, such as electrical cables, water pipes, and air ducts.



Reconnect Activity (cont.)

As students type correctly and reconnect the pieces the environment changes: the dry ground gets greener as it is watered, the dark city lights up, and the airless warehouse gets brighter. WPM and accuracy are always recorded.

Activity Payoffs

All activities have a variety of cross-curricular payoffs. Payoff content is grade-appropriate and covers such topics as: science, language & literature, music, social studies, astronomy, inventions, architecture, and other common knowledge facts.



Each activity has a multitude of payoffs, so as students play and replay the activities in each lesson they are sure to get a rich variety of cross-curricular, incidental learning.

Keyboarding Rubrics

The following sample rubric may be used by teachers or parents for assessing students' keyboarding technique:

	Always	Sometimes	Needs Work
Does the student exhibit proper body position:			
▪ placing both feet flat on the floor?			
▪ sitting centered in front of the keyboard?			
▪ sitting in a relaxed position, back straight, touching the back of the chair?			
▪ sitting a comfortable distance from the keyboard? (A hand-span is suggested.)			
Does the student exhibit proper arm and hand position:			
▪ holding arms relaxed, elbows naturally close to the body?			
▪ keeping fingers curved, tips of fingers resting lightly on keys?			
▪ keeping wrists low and straight, not resting on the keyboard or table?			
▪ hands correctly positioned on the home row keys, with index fingers on J and F?			
Does the student demonstrate proper key stroking:			
▪ beginning and ending all keystrokes at home row position?			
▪ striking keys with quick, strong, tapping keystrokes?			
▪ tapping each key with the correct finger?			
▪ tapping the space bar with the thumb?			
▪ pressing the Shift key with the appropriate opposite little finger?			
▪ pressing the Enter/Return key with the right little finger?			
▪ keeping eyes on the screen at all times?			
▪ maintaining a steady typing rhythm?			

This sample rubric may be used by students as a self-assessment of their own technique:

	Always	Sometimes	Needs Work
I keep my feet flat on the floor.			
I sit up straight.			
My wrists are straight, not bent down, and not touching the keyboard or table.			
I keep my eyes on the screen.			
I keep my hands on the home row.			
I hit each key with a quick, strong tap.			
I use the correct fingering.			

Ergonomic Tips and Exercises

The following Ergonomic Breaks have been incorporated into *Type to Learn 4* and appear after teacher-controlled time limits:

1. Time for a quick stretch! Stay seated, clasp your hands together, and reach as high as you can toward the ceiling. 1, 2, 3, 4, 5. Then lean slightly over to one side. 1, 2, 3, 4, 5. Lean slightly over to the other side. 1, 2, 3, 4, 5.
2. Take a break! Close your eyes and gently cover them with your hands. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Then look at the wall across the room. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Take a deep breath in through your nose 1, 2, 3 and out through your mouth 1, 2, 3.
3. Let's stretch your wrists! Hold one arm straight out in front of you and use your other hand to gently pull back on your hand. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Then gently pull your hand downward. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Switch arms and stretch your other wrist. Gently pull back, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and gently pull downward 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
4. Time to stretch! Stay seated, lean forward and touch your feet. Relax your back and let your body hang. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Sit up and breathe in through your nose 1, 2, 3 and out through your mouth 1, 2, 3.
5. Time for a quick stretch! Stay seated and clasp your hands behind your head. Bring your elbows back, take a deep breath, and lean back and stretch. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
6. Let's stretch your ankles! In your seat, pick up one foot and move it in a circle, 1, 2, 3 times one way and 1, 2, 3 times the other way. Then do it with the other foot. 1, 2, 3 times one way and 1, 2, 3 times the other way.
7. Let's give your arms a rest! In your seat, let your arms hang down at your sides. Shake your hands and arms very gently. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.